

State of California  
AIR RESOURCES BOARD

EXECUTIVE ORDER A-18-107  
Relating to Certification of New Motor Vehicles

VOLVO CAR CORPORATION

Pursuant to the authority vested in the Air Resources Board by the Health and Safety Code, Division 26, Part 5, Chapter 2; and

Pursuant to the authority vested in the undersigned by Health and Safety Code Sections 39515 and 39516 and Executive Order G-45-9;

IT IS ORDERED AND RESOLVED: That the following exhaust and evaporative emission control systems produced by the manufacturer are certified as described below:

Model Year: 2001

Vehicle Type: Passenger Car

Exhaust Emission Standard Category: Low-Emission Vehicle (LEV)

Fuel Type: Gasoline

Test Group: 1VVXV1.95L4T

Engine Displacement: 1.9 Liters

Evaporative Family: 1VVXR0133AAA

Special Features and Exhaust Emission Control Systems:

- Sequential Multiport Fuel Injection
- Three Way Catalytic Converter
- Heated Oxygen Sensors (two)
- Turbocharger
- Charge Air Cooler

Models Covered: Volvo S40, V40

The exhaust certification emission levels and standards, in grams per mile, of non-methane organic gases (NMOG) or non-methane hydrocarbon (NMHC), carbon monoxide (CO), oxides of nitrogen (NOx), and formaldehyde (HCHO) for the listed vehicle models are as follows. The exhaust certification emission levels and standards under the Supplemental Federal Test Procedure (SFTP) US06 and SC03 tests are also listed below. The NMOG exhaust certification emission levels include application of the reactivity adjustment factor (RAF) as specified.

The evaporative hydrocarbon (HC) certification emission levels and standards for three-day diurnal plus hot soak (3D) and two-day diurnal plus hot soak (2D) in grams per test, running loss (RL) in grams per mile, and onboard refueling vapor recovery (ORVR) in grams per gallon of fuel dispensed, for the listed vehicle models are as follows.

<u>Type of Emissions</u>	<u>Miles</u>	<u>Certification Level</u>	<u>Certification Standards</u>
<u>EXHAUST @ NMOG RAF = 0.94</u>			
..... NMOG fleet average		0.075 (projected)	0.070
NMOG	50,000	0.047	0.075
NMOG	100,000	0.053	0.090
CO	50,000	1.1	3.4
CO	100,000	1.2	4.2
NOx	50,000	0.01	0.2
NOx	100,000	0.02	0.3
NOx (highway)	50,000	0.01	0.3
NOx (highway)	100,000	0.02	0.4
HCHO	50,000	0.001	0.015
..... HCHO	100,000	0.001	0.018
..... CO (20°F)	50,000	2.9	10.0
NMOG (50°F)	4,000	0.070	0.150
CO (50°F)	4,000	1.6	3.4
NOx (50°F)	4,000	0.03	0.2
HCHO (50°F)	4,000	0.0002	0.030
NMHC+NOx (SFTP US06)	4,000	0.01	0.14
CO (SFTP US06)	4,000	0.01	8.0
NMHC+NOx (SFTP SC03)	4,000	0.01	0.20
CO (SFTP SC03)	4,000	0.05	2.7
<u>EVAPORATIVE</u>			
HC-2D	100,000	1.8	2.5
HC-3D	100,000	0.9	2.0
HC-RL	100,000	0.00	0.05
HC-ORVR	100,000	0.001	0.20

BE IT FURTHER RESOLVED: That any debit in the manufacturer's NMOG fleet average compliance plan shall be equalized as required by the "California Exhaust Emission Standards and Test Procedures for 2001 and Subsequent Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles."

BE IT FURTHER RESOLVED: That the listed vehicle models are conditionally certified pursuant to Title 13, California Code of Regulations, Section 1968.1(m)(6.2) ("Malfunction and Diagnostic System Requirements—1994 and Subsequent Model-Year Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles and Engines") because the on-board diagnostic II system of the listed vehicle models has been determined to have three deficiencies. The listed vehicle models are approved subject to Volvo Car Corporation paying a fine of twenty-five dollars (\$25.00) per vehicle for the third deficiency in the listed engine family that is produced and delivered for sale in California.


On a quarterly basis, the vehicle manufacturer shall submit to the Air Resources Board reports of the number of vehicles produced and delivered for sale in California under this conditional certification, and pay the full fine owed for that quarter pursuant to this conditional certification; payment shall be made payable to the State Treasurer for deposit in the Air Pollution Control Fund no later than thirty days after the end of each calendar quarter during the 2001 model year production period. Failure to pay the quarterly fine, in full, in the time provided, may be cause for the Executive Officer to rescind this conditional certification, effective from the start of the quarter in question, in which case all vehicles covered under this conditional certification for that quarter and all future quarters would be deemed uncertified and subject to a civil penalty of up to \$5,000 per vehicle pursuant to Health and Safety Code Section 43154.

BE IT FURTHER RESOLVED: That for the listed vehicle models, the manufacturer has attested to compliance with the following California emission regulations and requirements. Vehicles certified under this Executive Order shall conform to all applicable California emission regulations and requirements.

- Specifications for Fill Pipes and Openings of Motor Vehicle Fuel Tanks (Title 13, California Code of Regulations, Section 2235)
- Motor Vehicle Emission Control and Smog Index Label Specifications (Title 13, California Code of Regulations, Section 1965)
- Emission Control System Warranty (Title 13, California Code of Regulations, Sections 2035 et seq.)
- High-Altitude Requirements and California Inspection and Maintenance Emission Standards (California Exhaust Emission Standards and Test Procedures for 2001 and Subsequent Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles)

The Bureau of Automotive Repair will be notified by copy of this order.

Executed at El Monte, California this 7<sup>th</sup> day of August 2000.

 FOR  
R. B. Summerfield, Chief  
Mobile Source Operations Division